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=> d his

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L4         19010 SEA FILE=REGISTRY SUB=L1 SSS FUL L2 NOT L3
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L7            24 S L5 AND L6
L8           284 S LIGAND# AND L5
L9             3 S L8 AND L6
L10       323170 S ADSOR? OR DESOR?
L11          152 S L10 AND L5
L12            2 S L11 AND L6
L13          783 S ELECTRON? (L) WITHDR?
L14            3 S L5 AND L13
L15        11696 S (ELECTRON? (S) WITHDR?)/AB
L16           53 S L15 AND L5
L17            2 S L16 AND (L6 OR LIGAND?)
L18            7 S L9 OR L12 OR L14 OR L17
L19         7342 S L6 (L) BIND?
L20            6 S L19 AND L5
L21           12 S L20 OR L18
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too many hits

narrowed

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=> fil reg
FILE 'REGISTRY' ENTERED AT 11:01:38 ON 03 JUL 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:     2 JUL 2003  HIGHEST RN 541497-70-5
DICTIONARY FILE UPDATES:    2 JUL 2003  HIGHEST RN 541497-70-5

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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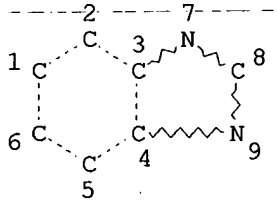


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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS   9

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FILE 'HCAPLUS' ENTERED AT 11:01:51 ON 03 JUL 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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→ narrowed search by not allowing any other rings

FILE COVERS 1907 - 3 Jul 2003 VOL 139 ISS 1
FILE LAST UPDATED: 2 Jul 2003 (20030702/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

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FILE 'HCAPLUS' ENTERED AT 10:55:03 ON 03 JUL 2003

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L9	3	S	L8 AND L6
L10	323170	S	ADSOR? OR DESOR?
L11	152	S	L10 AND L5
L12	2	S	L11 AND L6
L13	783	S	ELECTRON? (L) WITHDR?
L14	3	S	L5 AND L13
L15	11696	S	(ELECTRON? (S) WITHDR?)/AB
L16	53	S	L15 AND L5
L17	2	S	L16 AND (L6 OR LIGAND?)
L18	7	S	L9 OR L12 OR L14 OR L17
L19	7342	S	L6 (L) BIND?
L20	6	S	L19 AND L5
L21	12	S	L20 OR L18

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L9             3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L8 AND L6
L10       323170 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ADSOR?/OBI OR DESOR?/OBI
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L18            7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9 OR L12 OR L14 OR L17
L19         7342 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 (L) BIND?/OBI
L20            6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 AND L5
L21           12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20 OR L18


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L21  ANSWER 1 OF 12  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2001:396779  HCAPLUS
DOCUMENT NUMBER:          135:10396
TITLE:                    A method for anion-exchange adsorption and
                          anion-exchangers
INVENTOR(S):              Johansson, Bo-lennart; Andersson, Mikael; Gustavsson,
                          Jan; Belew, Makonnen; Maloisel, Jean-luc
PATENT ASSIGNEE(S):       Amersham Pharmacia Biotech Ab, Swed.
SOURCE:                   PCT Int. Appl., 50 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
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     WO 2001038227      A2   20010531       WO 2000-EP11605  20001122
     WO 2001038227      A3   20011115
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
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         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     EP 1235748         A2   20020904       EP 2000-979615   20001122
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
     JP 2003514664      T2   20030422       JP 2001-539791   20001122
PRIORITY APPLN. INFO.:                    SE 1999-4197     A  19991122
                                          WO 2000-EP11605  W  20001122
AB   A method for the removal of a substance carrying a neg. charge and being
```

present in an aq. liq. (I). The method comprises the steps of: (i) contacting the liq. with a matrix carrying a plurality of ligands comprising a pos. charged structure and a hydrophobic structure, and (ii) desorbing the substance. The characterizing feature is that (I) each of said ligands together with a spacer has the formula: -- SP---[Ar-R1-N+(R2R3R4)] where (A) [Ar-R1-N+(R2R3R4)] represents a ligand (a) Ar is an arom. ring, (b) R1 is [(L)nR'1]m where n and m are integers selected amongst zero or 1; L is amino nitrogen, ether oxygen or thioether sulfur; R'1 is a linker selected among (1) hydrocarbon groups; (2) -C(=NH)-; (c) R2-4 are selected among hydrogen and alkyls; (B) SP is a spacer providing a carbon or a heteroatom directly attached to Ar-R1-N+(R2R3R4); (C) --- represents that SP replaces a hydrogen in [Ar-R1-N+(R2R3R4)]; (D) -- represents binding to the matrix; and (II) desorption. There is also described (a) anion-exchangers having high breakthrough capacities, (b) a screening method and (c) a desalting protocol.

IC ICM C02F001-28
ICS B01J041-00

CC 66-4 (Surface Chemistry and Colloids)
Section cross-reference(s): 9, 80

ST anion exchange **adsorption** protein recovery sepn; ionic strength **adsorption** protein anion exchanger

IT Allylation
Bromination
Molecular structure-property relationship
(Sepharose 6 Fast Flow matrix modified by allylation with allyl glycidyl ether proceeded by bromination and coupling with various nitrogen contg. **ligands**)

IT Anion exchange
Anion exchangers
Ionic strength
(Sepharose 6 Fast Flow matrix modified with various **ligands** in which there is a pos. charged nitrogen under conditions permitting binding between the anion-exchanger and various proteins at high ionic strengths)

IT Lactalbumins
Proteins, general, properties
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process)
(Sepharose 6 Fast Flow matrix modified with various **ligands** in which there is a pos. charged nitrogen under conditions permitting binding between the anion-exchanger and various proteins at high ionic strengths)

IT Liquid chromatography
(Sepharose 6 Fast Flow matrix modified with various **ligands** in which there is a pos. charged nitrogen under conditions permitting binding between the anion-exchanger and various proteins at high ionic strengths evaluated using)

IT **Adsorption**
Desorption
(method for anion-exchange **adsorption** and anion-exchangers and **desorption** from them)

IT **Albumins**, properties
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process)
(serum; Sepharose 6 Fast Flow matrix modified with various **ligands** in which there is a pos. charged nitrogen under conditions permitting **binding** between the anion-exchanger and

various proteins at high ionic strengths)

IT 60-23-1, Cysteamine 104-14-3, Octopamine 106-92-3, Allyl glycidyl ether 3674-06-4 6674-22-2, 1,8-Diazabicyclo[5,4,0]-undec-7-ene 7726-95-6, Bromine, reactions 19406-49-6 67385-09-5 106894-56-8, Fmoc-L-tyrosine-N-hydroxysuccinimide ester
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(Sepharose 6 Fast Flow matrix modified by allylation with allyl glycidyl ether proceeded by bromination and coupling with various nitrogen contg. **ligands**)

IT 136109-66-5, sepharose 6 fast flow
RL: AMX (Analytical matrix); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process)
(Sepharose 6 Fast Flow matrix modified with various **ligands** in which there is a pos. charged nitrogen under conditions permitting binding between the anion-exchanger and various proteins at high ionic strengths)

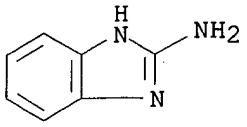
IT 1391-06-6, conalbumin 9078-38-0, soybean trypsin inhibitor
RL: ANT (Analyte); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process)
(Sepharose 6 Fast Flow matrix modified with various **ligands** in which there is a pos. charged nitrogen under conditions permitting binding between the anion-exchanger and various proteins at high ionic strengths)

IT 127546-40-1, Q Sepharose fast flow
RL: AMX (Analytical matrix); PEP (Physical, engineering or chemical process); PRP (Properties); ANST (Analytical study); PROC (Process)
(Sepharose 6 Fast Flow matrix modified with various **ligands** in which there is a pos. charged nitrogen under conditions permitting binding between the anion-exchanger and various proteins at high ionic strengths compared with)

IT 51-41-2, Noradrenaline 60-18-4, Tyrosine, reactions 63-74-1, Sulfanilamide 99-57-0, 2-Amino-4-nitrophenol 119-62-0 123-30-8, 4-Aminophenol 500-88-9, Tyrosinol 526-53-4, Tryptophanol 552-85-2 **934-32-7**, 2-Aminobenzimidazole 1004-39-3, 4,6-Diamino-2-mercaptopyrimidine 1193-02-8, 4-Aminothiophenol 3204-61-3, 1,2,4,5-Tetraaminobenzene 3306-06-7, 2-Amino-1-phenyl-1,3-propanediol 7621-14-9 13472-00-9, 2-(4-Aminophenyl)ethylamine 16088-07-6 16854-32-3, Thiomicamine 36469-86-0 37491-68-2, 3,4-Dihydroxybenzylamine 341014-76-4 341014-77-5 341014-78-6 341032-58-4
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(elution cond. for three proteins and breakthrough capacity of BSA on Sepharose 6 Fast Flow anion-exchangers modified with **ligands** of)

IT **934-32-7**, 2-Aminobenzimidazole
RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(elution cond. for three proteins and breakthrough capacity of BSA on Sepharose 6 Fast Flow anion-exchangers modified with **ligands** of)

RN 934-32-7 HCAPLUS
CN 1H-Benzimidazol-2-amine (9CI) (CA INDEX NAME)



L21 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:441826 HCAPLUS
DOCUMENT NUMBER: 133:71091
TITLE: Removal/purification of serum **albumins** using matrix-immobilized affinity **ligands**
INVENTOR(S): Regberg, Tor; Ellstrom, Christel
PATENT ASSIGNEE(S): Amersham Pharmacia Biotech AB, Swed.
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000037501	A1	20000629	WO 1999-EP10123	19991220
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2355827	AA	20000629	CA 1999-2355827	19991220
EP 1141021	A1	20011010	EP 1999-968357	19991220
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002536296	T2	20021029	JP 2000-589570	19991220

PRIORITY APPLN. INFO.: SE 1998-4465 A 19981222
WO 1999-EP10123 W 19991220
OTHER SOURCE(S): MARPAT 133:71091
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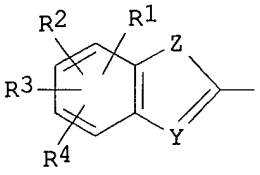

I

AB A method is disclosed for selectively enriching/removing a serum albumin from a mixt. of other compds. by contacting said mixt. with M-B-X where M is matrix, B the spacer and X the affinity ligand, with the provision that M may contain further groups X linked via a spacer. The characterizing feature is that the ligand X has been selected among serum albumin-binding structures complying with the I in which the free valence binds to the spacer B; R1-4 are selected from hydrogen, **electron-withdrawing** groups, such as halogens and lower alkyl groups (C1-10) that possibly are substituted with **electron withdrawing** groups, such as halogens; Z and Y are selected among

oxygen, sulfur or nitrogen, with the provision that the nitrogen may carry a pos. charge. Also disclosed is a method for screening for ligand structures that, when attached to an affinity matrix, selectively bind serum albumin. The method has the characterizing feature that water-sol. compds. that exhibit a benzene ring fused to a 5-membered heterocycle contg. two or three heteroatoms, preferably two, selected from nitrogen, oxygen and sulfur after having been attached to a matrix, preferably in the 2-position, are screened for selective binding to albumin. Sepharose 4FF was activated with 1,4-bis(epoxypropoxy)butan and then coupled to various benzimidazol-2-yl compds. and other compds. The gels were tested for binding to human and bovine serum albumins and to human IgG.

IC ICM C07K014-765

CC 9-3 (Biochemical Methods)
Section cross-reference(s): 63

ST serum **albumin** removal purifn affinity **ligand**; benzimidazolyl affinity chromatog serum **albumin**

IT **Adsorbents**
(affinity; removal/purifn. of serum **albumins** using matrix-immobilized affinity **ligands**)

IT **Ligands**
RL: BPR (Biological process); BSU (Biological study, unclassified); DEV (Device component use); NUU (Other use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(immobilized, affinity; removal/purifn. of serum **albumins** using matrix-immobilized affinity **ligands**)

IT Affinity
(removal/purifn. of serum **albumins** using matrix-immobilized affinity **ligands**)

IT **Albumins**, preparation
RL: PUR (Purification or recovery); REM (Removal or disposal); PREP (Preparation); PROC (Process)
(serum; removal/purifn. of serum **albumins** using matrix-immobilized affinity **ligands**)

IT 2425-79-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(Sepharose 4FF activation with; removal/purifn. of serum **albumins** using matrix-immobilized affinity **ligands**)

IT 136109-65-4, Sepharose 4FF
RL: RCT (Reactant); RACT (Reactant or reagent)
(epoxy activation of and reaction with **ligands**; removal/purifn. of serum **albumins** using matrix-immobilized affinity **ligands**)

IT 120-53-6 149-30-4, 2(3H)-Benzothiazolethione **583-39-1**
2382-96-9, 2(3H)-Benzoxazolethione 4845-58-3 5331-91-9
6325-91-3 19462-98-7 27231-36-3
37052-78-1 142313-30-2 175135-17-8
175135-18-9 175276-96-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with epoxy-activated Sepharose 4FF; removal/purifn. of serum **albumins** using matrix-immobilized affinity **ligands**)

IT 136109-65-4DP, Sepharose 4FF, reaction products with **ligands**
RL: DEV (Device component use); NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(removal/purifn. of serum **albumins** using matrix-immobilized affinity **ligands**)

IT 583-39-1 **6325-91-3 19462-98-7**

27231-36-3 37052-78-1 142313-30-2
175135-17-8 175135-18-9 175276-96-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with epoxy-activated Sepharose 4FF; removal/purifn. of serum **albumins** using matrix-immobilized affinity **ligands**)

RN 583-39-1 HCAPLUS
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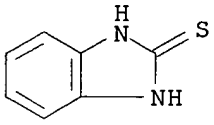

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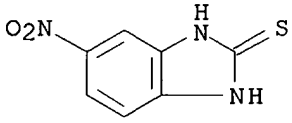

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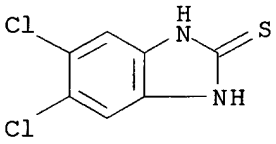

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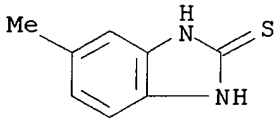

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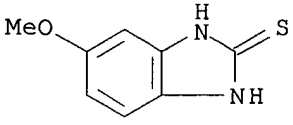

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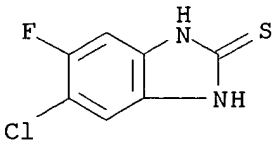

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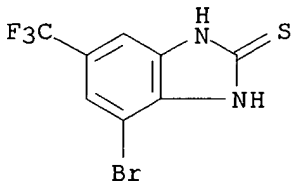

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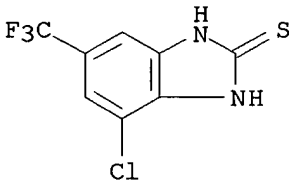
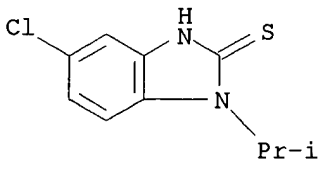


RN 175276-96-7 HCAPLUS
CN 2H-Benzimidazole-2-thione, 5-chloro-1,3-dihydro-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:12359 HCAPLUS

DOCUMENT NUMBER: 132:273792
TITLE: Plasma protein binding of albendazole and its main metabolite albendazole sulfoxide
AUTHOR(S): Medina R., Liz; Garcia A., Luis; Jung C., Helgi
CORPORATE SOURCE: Instituto Nacional de Neurologia y Neurocirugia, Fac. Quimica, UNAM, Ciudad Universitaria, DF, 04360, Mex.
SOURCE: Revista Mexicana de Ciencias Farmaceuticas (1999), 30(3), 42-45
CODEN: RMCFDT; ISSN: 1027-3956
PUBLISHER: Asociacion Farmaceutica Mexicana
DOCUMENT TYPE: Journal
LANGUAGE: Spanish

AB The binding of albendazole and albendazole sulfoxide to blood plasma proteins, albumin, and .alpha.1-acid glycoprotein was detd. using the equil. dialysis technique. Albendazole was bound to plasma proteins 89-92%, to albumin 80-82%, and to .alpha.1-acid glycoprotein 9-10%, whereas the binding of albendazole sulfoxide to plasma proteins was 62-67%, to albumin 33-36%, and to .alpha.1-acid glycoprotein 29-39%. This binding differences may be due to lower hydrophobicity of albendazole sulfoxide than its precursor. Since the sulfoxide metabolite is responsible of the albendazole pharmacol. activity, the lower extent of its binding has no clin. significance.

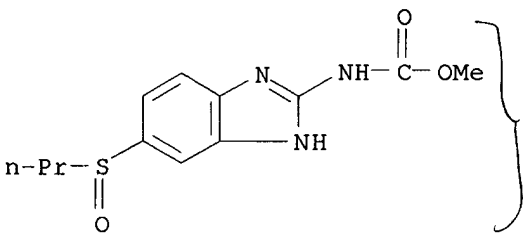
CC 1-2 (Pharmacology)

IT **Albumins**, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(serum; albendazole and its metabolite albendazole sulfoxide **binding** to blood plasma proteins in vitro)

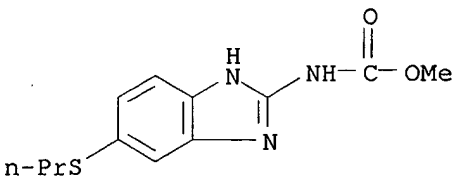
IT **54029-12-8**, Albendazole sulfoxide **54965-21-8**, Albendazole
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(albendazole and its metabolite albendazole sulfoxide binding to blood plasma proteins in vitro)

IT **54029-12-8**, Albendazole sulfoxide **54965-21-8**, Albendazole
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(albendazole and its metabolite albendazole sulfoxide binding to blood plasma proteins in vitro)

RN 54029-12-8 HCAPLUS
CN Carbamic acid, [5-(propylsulfinyl)-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)



RN 54965-21-8 HCAPLUS
CN Carbamic acid, [5-(propylthio)-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:512080 HCAPLUS
DOCUMENT NUMBER: 130:47072
TITLE: Sex differences in the disposition of albendazole metabolites in sheep
AUTHOR(S): Cristofol, Carles; Navarro, Marc; Franquelo, Carme; Valladares, Josep-Enric; Arboix, Margarita
CORPORATE SOURCE: Facultat de Veterinaria, Departament de Farmacologia i de Terapeutica, UAB, Bellaterra, 08193, Spain
SOURCE: Veterinary Parasitology (1998), 78(3), 223-231
CODEN: VPARDI; ISSN: 0304-4017
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Sex differences in the disposition of albendazole metabolites in sheep after oral administration of 20 mg/kg of netobimin have been studied. Some kinetic parameters of both metabolites show statistical differences between sexes; the sulfoxide and sulfone t1/2.beta. and MRT were lower in male animals than in females. Peak concns. and AUC of sulfone metabolites were higher in males suggesting a greater oxidn. rate compared with females. Urine excretion of albendazole metabolites, sulfoxide, sulfone, and amino sulfone appeared to be greater in female sheep than in males, mainly the sulfoxide metabolite. These differences between sexes can be caused by male sexual hormones, because testosterone and progesterone can induce or inhibit the microsomal Cytochrome P 450 metab. Plasma protein-binding of albendazole sulfoxide and albendazole sulfone has been studied between male and female sheep, also their binding to sheep albumin and globulins. Both albendazole metabolites readily bind to sheep albumin and globulins. Male animals show a significantly lower binding of albendazole metabolites than females. These differences could be responsible for the non-esterified fatty acids (NEFA) present in the plasma. Males have significantly higher plasma levels of NEFA than females and which may compete with for binding to albendazole metabolites.

CC 1-2 (Pharmacology)
Section cross-reference(s): 63

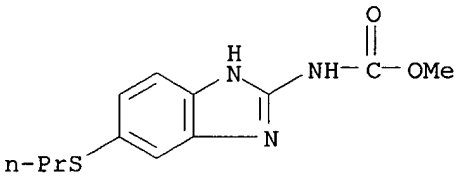
IT **Albumins**, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(serum, **binding** to; sex differences in the disposition of albendazole metabolites in sheep)

IT **54965-21-8D**, Albendazole, metabolites 88255-01-0, Netobimin
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(sex differences in the disposition of albendazole metabolites in sheep)

IT **54029-12-8**, Albendazole sulfoxide **75184-71-3**,
Albendazole sulfone **80983-34-2**
RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(sex differences in the disposition of albendazole metabolites in sheep)

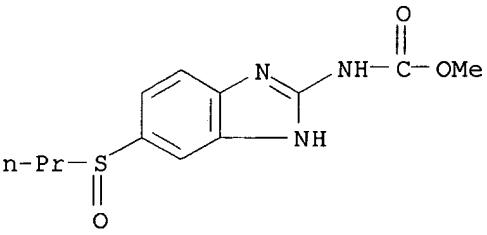
IT **54965-21-8D**, Albendazole, metabolites
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(sex differences in the disposition of albendazole metabolites in sheep)

RN 54965-21-8 HCAPLUS
CN Carbamic acid, [5-(propylthio)-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)

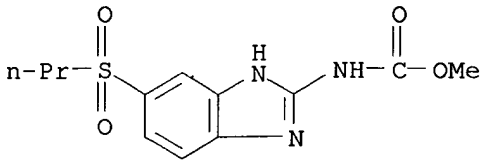


IT **54029-12-8**, Albendazole sulfoxide **75184-71-3**,
Albendazole sulfone **80983-34-2**
RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(sex differences in the disposition of albendazole metabolites in sheep)

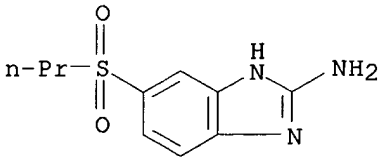
RN 54029-12-8 HCAPLUS
CN Carbamic acid, [5-(propylsulfinyl)-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)



RN 75184-71-3 HCAPLUS
CN Carbamic acid, [5-(propylsulfonyl)-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)



RN 80983-34-2 HCAPLUS
CN 1H-Benzimidazol-2-amine, 5-(propylsulfonyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:344326 HCAPLUS
DOCUMENT NUMBER: 127:26008
TITLE: Negatively charging electrostatographic toner containing 2-substituted imidazole derivative charge controller
INVENTOR(S): Takahashi, Toshihiko; Tanaka, Katsuhiko; Nagatsuka, Takayuki
PATENT ASSIGNEE(S): Canon K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

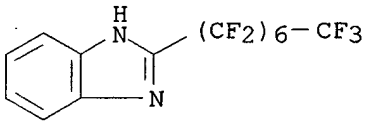
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09080819	A2	19970328	JP 1995-257217	19950911
JP 3382428	B2	20030304		

PRIORITY APPLN. INFO.: JP 1995-257217 19950911
OTHER SOURCE(S): MARPAT 127:26008
AB The toner contains an imidazole compd. having an electron-withdrawing substituent at the 2nd position. The toner showed rapid and enough charging and long shelf life.
IC ICM G03G009-097
ICS G03G009-08
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST neg charging electrostatog toner imidazole; **electron withdrawing** substituent imidazole electrophotog toner; charge controller imidazole electrostatog toner
IT 50832-48-9 81769-47-3 **131769-26-1 189338-47-4**
RL: TEM (Technical or engineered material use); USES (Uses)

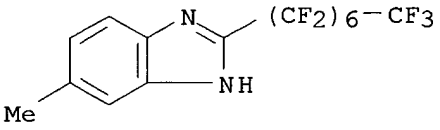
(neg.-charging electrostatog. toner contg. imidazole deriv. charge controller showing rapid and enough charging and long shelf life)

IT **131769-26-1 189338-47-4**
RL: TEM (Technical or engineered material use); USES (Uses)
(neg.-charging electrostatog. toner contg. imidazole deriv. charge controller showing rapid and enough charging and long shelf life)

RN 131769-26-1 HCAPLUS
CN 1H-Benzimidazole, 2-(pentadecafluoroheptyl)- (9CI) (CA INDEX NAME)



RN 189338-47-4 HCAPLUS
CN 1H-Benzimidazole, 5-methyl-2-(pentadecafluoroheptyl)- (9CI) (CA INDEX NAME)

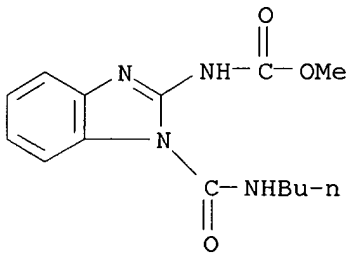


L21 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:554835 HCAPLUS
DOCUMENT NUMBER: 123:3079
TITLE: Charge transfer chromatographic study of the **binding** of commercial pesticides to various **albumins**
AUTHOR(S): Cserhati, Tibor; Forgacs, Esther
CORPORATE SOURCE: Central Research Institute for Chemistry, Hungarian Academy of Sciences, P.O. Box 17, Budapest, 1525, Hung.
SOURCE: Journal of Chromatography, A (1995), 699(1 + 2), 285-90
CODEN: JCRAEY; ISSN: 0021-9673
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The interaction of 28 com. pesticides with human and bovine serum albumin as well as with egg albumin was studied by charge-transfer reversed-phase thin-layer chromatog. and the relative strength of the interaction was calcd. Only one pesticide interacted with egg albumin whereas the majority of pesticides bound both to bovine and human serum albumins. Stepwise regression anal. proved that the hydrophobicity parameters of pesticides exert a significant impact on their capacity to bind to serum albumins. These findings support the hypothesis that the binding of pesticides to albumins may involve hydrophilic forces occurring between the corresponding apolar substructures of pesticides and amino acid side chains. No linear correlation was found between the capacities of human and bovine serum albumins to bind pesticides.

CC 4-4 (Toxicology)

Section cross-reference(s): 5
ST pesticide **binding albumin** charge transfer chromatog
IT Pesticides
(charge transfer chromatog. study of **binding** of com. pesticides to various **albumins**)
IT **Albumins**, biological studies
Ovalbumins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(charge transfer chromatog. study of **binding** of com. pesticides to various **albumins**)
IT Chromatography, column and liquid
(charge-transfer, charge transfer chromatog. study of **binding** of com. pesticides to various **albumins**)
IT 80-33-1, Chlorfenson 115-29-7, Endosulfan 330-55-2, Linuron 886-50-0, Terbutryn 957-51-7, Diphenamid 1912-24-9, Atrazin 2032-65-7, Methiocarb 2164-08-1, Lenacil 2425-06-1, Captafol 3878-19-1, Fuberidazole 4658-28-0, Aziprotryne 5234-68-4, Carboxin 5902-51-2, Terbacil 5915-41-3, Terbutylazine 13360-45-7, Chlorbromuron 15545-48-9, Chlorotoluron **17804-35-2**, Benomyl 23564-05-8, Thiophanate-methyl 26225-79-6, Ethofumesate 34123-59-6, Isoproturon 57966-95-7 67747-09-5, Prochloraz 69327-76-0, Buprofezin 74115-24-5, Clofentezine 74782-23-3, Oxabetrinil 76674-21-0, Flutriafol 77732-09-3, Oxadixyl 82097-50-5, Triasulfuron
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(charge transfer chromatog. study of **binding** of com. pesticides to various **albumins**)
IT **17804-35-2**, Benomyl
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(charge transfer chromatog. study of **binding** of com. pesticides to various **albumins**)
RN 17804-35-2 HCAPLUS
CN Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)



L21 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:425557 HCAPLUS
DOCUMENT NUMBER: 121:25557
TITLE: Copper(II) complexes of novel tripodal **ligands** containing phenolate and benzimidazole/pyridine pendants: synthesis, structure, spectra and electrochemical behavior
AUTHOR(S): Uma, Rajendran; Viswanathan, Rathinam; Palaniandavar,

Mallayan; Lakshminarayanan, M.
CORPORATE SOURCE: Dep. Chem., Bharathidasan Univ., Tiruchirapalli, 620 024, India
SOURCE: Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1972-1999) (1994), (8), 1219-26
CODEN: JCDTBI; ISSN: 0300-9246
DOCUMENT TYPE: Journal
LANGUAGE: English

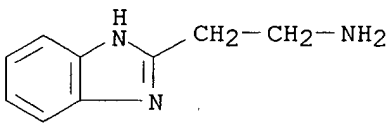
AB Mononuclear Cu(II) complexes of tri- and tetra-dentate tripodal ligands 2-HO-5-NO2C6H3NRCH2R1 (R = H, R1 = 2-benzimidazolyl (R2), 2-pyridyl (R3); R = R1 = R2, R3), 2-HO-5-NO2C6H3CH2NHCH2CH2R2, (2-HO-5-NO2C6H3CH2)2NR (R = R2, R3) and HO-5-NO2C6H3CH2NHR3 isolated. They are [CuL(X)].cntdot.nH2O, [CuL(H2O)]X.cntdot.nH2O or [CuL].cntdot.nH2O where X = Cl-, ClO4-, N3- or NCS- and n = 0-4. The electronic spectra of all the complexes exhibit a broad absorption band around 14,000 cm-1 and the polycryst. as well as the frozen-soln. EPR spectra are axial, indicating square-based geometries. The crystal structure of [CuLCl] [HL = (2-hydroxy-5-nitrobenzyl)bis(2-pyridylmethyl)amine] revealed a square-pyramidal geometry around CuII. The mononuclear complex crystallizes in the triclinic space group P.hivin.1 with a 6.938(1), b 11.782(6), c 12.678(3) .ANG. and .alpha. 114.56(3), .beta. 92.70(2), .gamma. 95.36(2).degree.. The coordination plane is comprised of 1 tertiary amine and 2 pyridine nitrogens and a chloride ion. The phenolate ion unusually occupies the axial site, possibly due to the **electron-withdrawing** p-nitro group. The enhanced .pi. delocalization involving the p-nitrophenolate donor elevates the E1/2 values. The spectral and electrochem. results suggest the order of donor strength as nitrophenolate < pyridine < benzimidazole in the tridentate and nitrophenolate < benzimidazole < pyridine in the tetradentate ligand complexes.

CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 72, 75

IT **4499-07-4**, 2-(2-Aminoethyl)benzimidazole dihydrochloride
5993-91-9, 2-Aminomethylbenzimidazole dihydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with chloromethylnitrophenol)

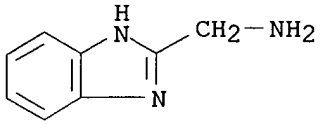
IT **4499-07-4**, 2-(2-Aminoethyl)benzimidazole dihydrochloride
5993-91-9, 2-Aminomethylbenzimidazole dihydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with chloromethylnitrophenol)

RN 4499-07-4 HCAPLUS
CN 1H-Benzimidazole-2-ethanamine, dihydrochloride (9CI) (CA INDEX NAME)



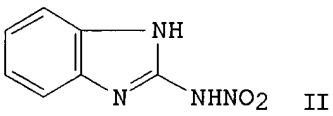
·2 HCl

RN 5993-91-9 HCAPLUS
CN 1H-Benzimidazole-2-methanamine, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

L21 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:58905 HCAPLUS
DOCUMENT NUMBER: 116:58905
TITLE: Mono- and bis(2-nitroguanidino)benzenes and some of their amino and nitro derivatives
AUTHOR(S): Luk'yanov, O. A.; Mel'nikova, T. G.; Shagaeva, M. E.
CORPORATE SOURCE: Inst. Org. Khim. im. Zelinskogo, Moscow, USSR
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (1991), (11), 2581-7
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 116:58905
GI



II

AB Reaction of MeSC(NH2):NNO2 (I) with arylamines ArNH2 (Ar = Ph, 3- and 4-H2NC6H4) at 60-80.degree. afforded the corresponding mono(nitroguanidino) derivs. ArNHC(NH2):NNO2 in 76, 89, and 80% yields, resp. Reaction of I with o-phenylenediamine afforded (nitramino)benzimidazole II, derived from the corresponding primary product ArNHC(NH2):NNO2 (Ar = 2-H2NC6H4, III) under the reaction conditions. III itself was synthesized at lower temp. in the reaction of o-phenylenediamine with 1-methyl-1-nitroso-2-nitroguanidine, and was converted in 93% yield to II at 150-160.degree.. Bis(nitroguanidino) substitution in ArNH2 was accomplished at higher temp. and for longer reaction duration, testifying to the deactivating effect of the electron-accepting nitroguanidino group on the reaction of the remaining nitro group. Alternative synthetic routes for (nitroaryl)-2-nitroguanidines involved oxidn. of the corresponding (aminoaryl) and nitration of the corresponding aryl derivs.
CC 25-21 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 28
IT Nitration
(of (nitroguanidino)benzenes contg. deactivating **electron-withdrawing** groups)
IT Regiochemistry

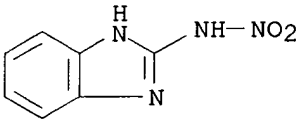
(of nitration of (nitroguanidino)benzenes contg. deactivating **electron-withdrawing** groups)

IT **138416-36-1P** 138416-41-8P 138416-42-9P 138416-45-2P
138416-46-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **138416-36-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 138416-36-1 HCAPLUS

CN 1H-Benzimidazol-2-amine, N-nitro- (9CI) (CA INDEX NAME)



L21 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1988:17530 HCAPLUS

DOCUMENT NUMBER: 108:17530

TITLE: Prevention by thioethers of the hepatotoxicity and covalent binding to macromolecules of N-hydroxy-2-acetylaminofluorene and its sulfate ester in rat liver in vivo and in vitro

AUTHOR(S): Van den Goorbergh, J. A. M.; De Wit, H.; Tijdens, R. B.; Mulder, G. J.; Meerman, J. H. N.

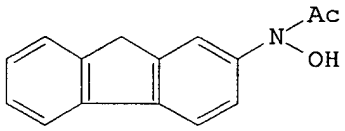
CORPORATE SOURCE: Sylvius Lab., Univ. Leiden, Leiden, 2300 RA, Neth.

SOURCE: Carcinogenesis (1987), 8(2), 275-9
CODEN: CRNGDP; ISSN: 0143-3334

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



I

AB To find potentially effective compds. that could prevent the covalent binding of the carcinogen N-hydroxy-2-acetylaminofluorene (N-OH-AAF) (I) to rat liver macromols. in vivo, the prevention of the covalent binding to RNA of the sulfate ester of N-OH-AAF by a series of thioethers was investigated in vitro. The most effective thioethers, which inhibited the covalent binding by .gtoreq.70% were studied for their protection against acute hepatotoxicity of N-OH-AAF in the rat in vivo. Three of these thioethers, thiazolidine, Me 4-(methylthio)benzoate, and 2-(methylthio)benzimidazole, significantly decreased the hepatotoxicity of N-OH-AAF by 45, 71, and 83%, resp. The effects of these thioethers on the covalent binding of N-OH-AAF to cellular macromols. in vivo were also

studied. Me 4-(methylthio)benzoate and 2-(methylthio)benzimidazole decreased the adduct formation of N-OH-AAF to DNA by 54 and 44%, resp., but had no effect on protein adduct formation. Only 2-(methylthio)benzimidazole caused a slight decrease (23%) in the AAF-protein adduct formation. AAF and Me 4-(methylsulfinyl)benzoate were the main products in the incubation of Me 4-(methylthio)benzoate with AAF-N-sulfate in vitro. This suggests that the thioether attacks the nitrenium ion which is formed by spontaneous breakdown of AAF-N-sulfate; the formation of a sulfonium-AAF conjugate is postulated which decomps. into AAF and a sulfinyl compd.

CC 4-6 (Toxicology)

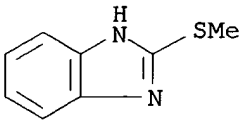
IT **Albumins**, biological studies
RL: BIOL (Biological study)
(hydroxyacetylaminofluorene sulfate covalent **binding** to, thioethers effect on)

IT 147-84-2, Diethyldithiocarbamic acid, biological studies 444-27-9, Thiazolidine 4-carboxylic acid 504-78-9, Thiazolidine 3795-79-7, Methyl 4-(methylthio)benzoate **7152-24-1**, 2-(Methylthio)benzimidazole
RL: BIOL (Biological study)
(hydroxyacetylaminofluorene toxicity to liver response to, covalent binding of hydroxyacetylaminofluorene sulfate to RNA in relation to)

IT **7152-24-1**, 2-(Methylthio)benzimidazole
RL: BIOL (Biological study)
(hydroxyacetylaminofluorene toxicity to liver response to, covalent binding of hydroxyacetylaminofluorene sulfate to RNA in relation to)

RN 7152-24-1 HCAPLUS

CN 1H-Benzimidazole, 2-(methylthio)- (9CI) (CA INDEX NAME)



L21 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1984:608793 HCAPLUS

DOCUMENT NUMBER: 101:208793

TITLE: Monoclonal antibodies specific for .beta.-adrenergic **ligands**

AUTHOR(S): Chamat, Soulaima; Hoebeke, Johan; Strosberg, A. Donny

CORPORATE SOURCE: Lab. Mol. Immunol., Inst. Jacques Monod, Paris, F-75251, Fr.

SOURCE: Journal of Immunology (1984), 133(3), 1547-52
CODEN: JOIMA3; ISSN: 0022-1767

DOCUMENT TYPE: Journal

LANGUAGE: English

AB After somatic cell fusion between splenocytes of immunized BALB/c mice and NS-1 myeloma cells, 8 clones were obtained secreting anti-alprenolol antibodies as characterized by means of an ELISA. Four of these were subcloned and were studied further. The assocn. const. for alprenolol ranged from 1.9 .times. 106 M-1 to 24 .times. 106 M-1. Competitive inhibition of [3H]-l-dihydroalprenolol binding revealed cross-reactivity with .beta.-adrenergic ligands, with a higher avidity for antagonists than for agonists. Two of the antibodies had a higher affinity for the l-isomer than for the d-isomer. The most stereospecific of these

antibodies showed only affinity for .beta.-adrenergic antagonists and for the agonist isoproterenol. The other recognized both .beta.-adrenergic antagonists and agonists; it also showed an increase in tryptophan fluorescence after ligand binding. This property was used for the physicochem. study of the hapten-antibody interaction.

CC 15-3 (Immunochemistry)

IT Antibodies
RL: BIOL (Biological study)
(monoclonal, to alprenolol, .beta.-adrenergic **ligand** specificity of)

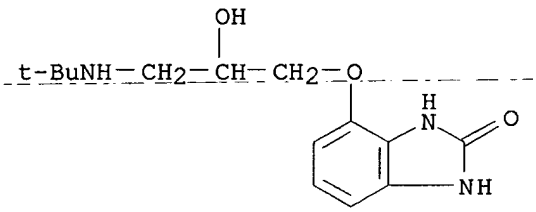
IT 51-31-0 51-41-2 51-43-4 2964-04-7 4199-09-1 5051-22-9 6673-35-4 18559-94-9 60106-89-0 72332-33-3 **81047-99-6**
RL: BIOL (Biological study)
(alprenolol-specific monoclonal antibody binding to)

IT 13655-52-2D, **albumin** conjugates
RL: BIOL (Biological study)
(monoclonal antibodies to, .beta.-adrenergic **ligand** specificity of)

IT **81047-99-6**
RL: BIOL (Biological study)
(alprenolol-specific monoclonal antibody binding to)

RN 81047-99-6 HCAPLUS

CN 2H-Benzimidazol-2-one, 4-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-1,3-dihydro- (9CI) (CA INDEX NAME)



L21 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1977:116700 HCAPLUS

DOCUMENT NUMBER: 86:116700

TITLE: Acyl migrations in diacyl derivatives of 2-methylmercaptobenzimidazole. A model of biotin

AUTHOR(S): Ohno, A.; Morishita, T.; Oka, S.

CORPORATE SOURCE: Inst. Chem. Res., Kyoto Univ., Uji, Japan

SOURCE: Bioorganic Chemistry (1976), 5(4), 383-91
CODEN: BOCMBM; ISSN: 0045-2068

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Diacyl derivs. of 2-methylmercaptobenzimidazole undergo tautomerization. Thermodn. predominancy of 1 isomer over the others depends on the substituents on carbonyl groups. Electron-withdrawing and electron-releasing substituents favor different isomeric configurations. The migration was extended to include the carboethoxy group and the results are discussed in relation to the mechanism of biotin-dependent enzymic carboxylation.

CC 7-4 (Enzymes)

IT **7152-24-1D**, diacyl derivs.
RL: BIOL (Biological study)
(acyl migrations in, **electron**-releasing and **electron**

-**withdrawing** substituents in relation to)

IT **62312-50-9**
RL: BIOL (Biological study)
(ethoxycarbonyl of, migration of)

IT **5268-66-6**
RL: FORM (Formation, nonpreparative)
(formation of, by acyl migration from ethoxycarbonylacetonylthiobenzimidazole)

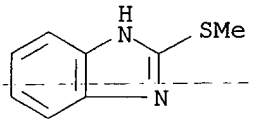
IT **5268-65-5P 16458-79-0P** 18606-28-5P 51949-53-2P 52026-33-2P 62312-51-0P 62312-52-1P 62312-53-2P **62312-54-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT **5429-62-9** 21547-79-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with acetyl chloride)

IT **5268-67-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoyl chloride)

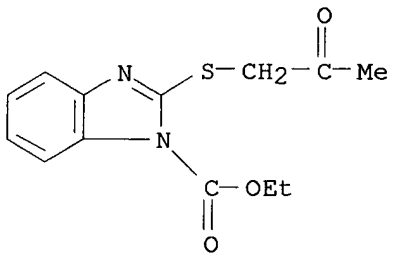
IT **7152-24-1D**, diacyl derivs.
RL: BIOL (Biological study)
(acyl migrations in, **electron**-releasing and **electron** -**withdrawing** substituents in relation to)

RN 7152-24-1 HCAPLUS
CN 1H-Benzimidazole, 2-(methylthio)- (9CI) (CA INDEX NAME)



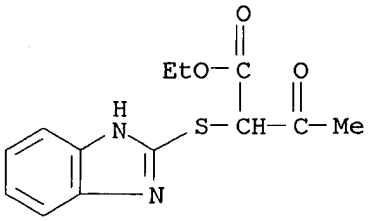
IT **62312-50-9**
RL: BIOL (Biological study)
(ethoxycarbonyl of, migration of)

RN 62312-50-9 HCAPLUS
CN 1H-Benzimidazole-1-carboxylic acid, 2-[(2-oxopropyl)thio]-, ethyl ester (9CI) (CA INDEX NAME)

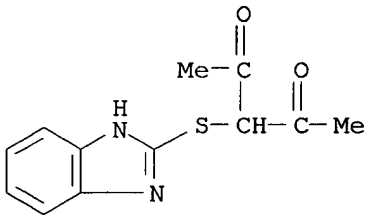


IT **5268-66-6**
RL: FORM (Formation, nonpreparative)
(formation of, by acyl migration from ethoxycarbonylacetonylthiobenzimidazole)

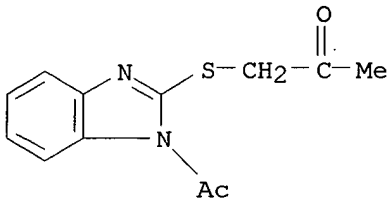
RN 5268-66-6 HCAPLUS
CN Butanoic acid, 2-(1H-benzimidazol-2-ylthio)-3-oxo-, ethyl ester (9CI) (CA INDEX NAME)



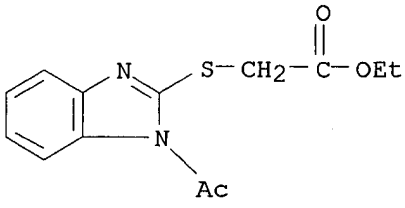
IT **5268-65-5P 16458-79-0P 62312-54-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 5268-65-5 HCAPLUS
CN 2,4-Pentanedione, 3-(1H-benzimidazol-2-ylthio)- (9CI) (CA INDEX NAME)



RN 16458-79-0 HCAPLUS
CN 1H-Benzimidazole, 1-acetyl-2-[(2-oxopropyl)thio]- (9CI) (CA INDEX NAME)

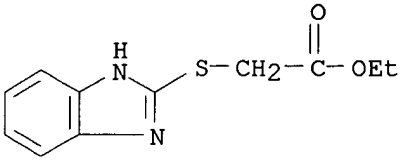


RN 62312-54-3 HCAPLUS
CN Acetic acid, [(1-acetyl-1H-benzimidazol-2-yl)thio]-, ethyl ester (9CI)
(CA INDEX NAME)

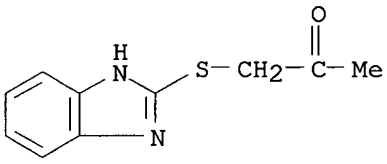


IT **5429-62-9**
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with acetyl chloride)
RN 5429-62-9 HCAPLUS
CN Acetic acid, (1H-benzimidazol-2-ylthio)-, ethyl ester (9CI) (CA INDEX NAME)



IT **5268-67-7**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoyl chloride)
RN 5268-67-7 HCAPLUS
CN 2-Propanone, 1-(1H-benzimidazol-2-ylthio)- (9CI) (CA INDEX NAME)



L21 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1973:522311 HCAPLUS
DOCUMENT NUMBER: 79:122311
TITLE: Effect of some uncoupling agents, ionophorous agents, and inhibitors on the fluorescence of ANS [1-anilino-8-naphthalenesulfonate] bound to bovine serum albumin
AUTHOR(S): Layton, Derek; Symmons, Peter
CORPORATE SOURCE: Biophys. Lab., Chelsea Coll., London, UK
SOURCE: FEBS Letters (1973), 30(3), 325-8
CODEN: FEBLAL; ISSN: 0014-5793
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The uncouplers, tetrachlorotrifluoromethyl benzimidazole (TTFB) [**2338-29-6**], carbonyl cyanide p-trifluoromethaoxyphenyl hydrazone (I) [370-86-5] and carbonyl cyanide m-chlorophenyl hydrazone (CCCP) [555-60-2] considerably decreased the fluorescence of 1-anilino-8-naphthalenesulfonate (ANS) [82-76-8] bound to bovine serum albumin. TTFB exhibited satn., whereas I and CCCP eliminated all the bovine serum albumin enhancement of ANS fluorescence. Ionophorous agents, such as nigericin [28380-24-7], and the ATPase inhibitor, oligomycin [1404-19-9], increased fluorescence. The interaction of bovine serum albumin with the uncouplers appears to affect the ANS binding site and to decrease the amt. of probe bound.
CC 3-13 (Biochemical Interactions)
ST serum **albumin** ANS **binding** uncoupler; ionophorous agent
albumin ANS **binding**; anilinonaphthalenesulfonate
binding albumin

IT 370-86-5 555-60-2 1404-19-9 **2338-29-6** 28380-24-7
RL: PRP (Properties)
(albumin-anilinonaphthalenesulfonate complex fluorescence response to)

IT **2338-29-6**
RL: PRP (Properties)
(albumin-anilinonaphthalenesulfonate complex fluorescence response to)

RN 2338-29-6 HCAPLUS

CN 1H-Benzimidazole, 4,5,6,7-tetrachloro-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)